

REMARKS

The present invention relates to a catalyst which selectively oxidizes traces of carbon monoxide, e.g., a gas containing about 1 vol.% concentration of carbon monoxide, which typically remains in reformed gas, as was noted at page 4, lines 23 - 25 of the specification.

At pages 2 - 3 of the Final Office Action dated April 4, 2007, the Examiner reiterated the rejection of claim 1 under 35 U.S.C. § 102(b) or 103(a) based on Noguchi et al (USP 4,237,030); the explanation was identical to the previous explanation of this rejection. At pages 3 - 4, the rejection of claim 1 under 35 U.S.C. § 102(b) based on Bartsch (USP 4,119,567) was reiterated, again in identical terms to the rejection as set forth in the previous Office Action. Lastly, the rejection of claim 2 under 35 U.S.C. § 103 based on Noguchi et al or Bartsch in view of Itoh et al (USP 5,997,830) was reiterated.

At page 5 of the Final Office Action, two explanations were set forth for maintaining the rejections of the claims. First, with respect to the limitation in claim 1 that the catalyst is “for selectively oxidizing carbon monoxide in reformed gas with oxygen gas”, the Examiner indicated that it was considered that the quoted recitation was an intended use limitation, and the Examiner emphasized that a new or different use of a catalyst does not change the characteristic of the catalyst composition. Second, the Examiner recognized a distinction urged by Applicants that the present invention does not “ordinary” (ordinarily) contain θ -alumina. The Examiner stated that this was not found persuasive, because although it was disclosed in the specification,

it was not being claimed. More specifically, the Examiner asserted that instant claim 1 does not exclude θ alumina.

Regarding the latter comments, the Examiner's position suggests that the rejection could be overcome if the claims are amended to include a recitation regarding the non-presence of θ -alumina.

Responsively, claim 1 has been amended herein to improve its form, and to more clearly indicate that the porous carrier does not contain θ -alumina.

In this regard, the disclosure bridging pages 5 - 6 of the present specification indicates that the α -alumina can be used singly as the porous carrier, thus excluding the presence of θ -alumina and other forms of alumina. It is respectfully submitted that this amendment is responsive to the Examiner's second comment regarding Applicants' position on patentability, and renders claims 1 and 2 as clearly distinguishing over the cited prior art, discussed further below.

The Noguchi et al reference describes that the catalyst thereof may have various crystalline forms of the alumina, including particularly, α -, but also includes γ - and θ -alumina. Furthermore, since the catalyst of Noguchi et al includes a significant amount of a sintering promoter (less than 20% by weight), it is respectfully submitted that Noguchi et al does not

anticipate or render obvious the required very high purity of the alumina in accordance with the present claim 1, which requires an alumina purity to 99.95% or above.

Accordingly, it is respectfully submitted that the prior art rejections based on Noguchi et al now clearly fail, and should be withdrawn.

Considering the Bartsch reference, although Bartsch places some emphasis on the use of high purity alumina carriers for a catalyst composition used in the preparation of unsaturated organic esters, and although the patentee refers to a "Group VIII" novel metal catalyst, the only Group VIII metal exemplified in Bartsch's catalysts is palladium.

In contrast, the very specific claims of the present application, which are limited strictly to Ru and/or Pt, are clearly not anticipated or rendered obvious by Bartsch's disclosure of only a single, different, member of the 9/12 member family of Group VIII B of the Periodic Table.

Accordingly, the prior art rejections based on the Bartsch reference also clearly fails, and should now be withdrawn.

Lastly, the Itoh reference (USP 5,997,830) was cited further to Noguchi et al or Bartsch in the obviousness rejection of claim 2 under 35 U.S.C. § 103(a), because the particle diameter in the case of claim 2 falls in the range of average particle diameter described in the Itoh prior art


reference. However, the Itoh et al reference contains no disclosure with respect to the deficiencies of the Noguchi et al and Bartsch references noted above. Of course, since claim 2 depends on claim 1, the patentability of claim 2 is also clear based on the distinctions asserted above with respect to claim 1.

In view of the above, entry of this Amendment and allowance of claims 1 and 2 of this application are now believed to be in order, and such actions are hereby earnestly solicited.

If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned attorney at the local Washington, D. C. telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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